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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,508	03/23/2004	John T. Stites	005127.00222	2719
22908	7590	11/28/2007		
BANNER & WITCOFF, LTD. TEN SOUTH WACKER DRIVE SUITE 3000 CHICAGO, IL 60606			EXAMINER YOO, JASSON H	
			ART UNIT 3714	PAPER NUMBER
			MAIL DATE 11/28/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/806,508

Applicant(s)

STITES ET AL.

Examiner

Jasson H. Yoo

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) 14-65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/23/04, 11/08/05, 2/20/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I (claims 1-13) in the reply filed on 10/18/07 is acknowledged.

Claims 14-65 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/18/07.

Information Disclosure Statement

The information disclosure statement filed 2/20/06 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Applicant did not submit a copy of the International Search Report for PCT/US2005/009375

Claim Objections

Claim 6 is objected to because of the following informalities: Claim 6 includes an antenna that comprises a feral. However Applicant's specification discloses the antenna comprises a ferrule. For purposes of this examination, It

will be assumed that claim 6 includes the limitation of, an antenna that comprises a ferrule.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Storek (US 2004/0259651).

1. Storek discloses a self contained instrumented golf club (11 in Fig. 4), the golf club comprising: a first accelerometer module mounted in a head of the golf club; and a second accelerometer module mounted in a shaft of the golf club (Inertial Navigation System 10 in Figs. 1 and 4, paragraphs, 39, 41-44, 49, 51-55, 69).

5. Storek discloses the instrumented golf club of claim 1, wherein the first accelerometer module senses acceleration along three orthogonal axes (paragraphs 27, 42, 49, 51-55, 69, 71-72).

10. Storek discloses the instrumented golf club of claim 1, further including a transmission module that wirelessly transmits golf swing data (RF or IR, paragraph 84).

11. Storek disclose a computer-readable medium containing computer-executable instructions for causing a transmission module embedded within a golf club to perform the steps of (hardware and software of the Inertial Navigation System, paragraph 5): receiving first golf swing data from a first accelerometer module mounted in a head of the golf club; receiving second golf swing data from a second accelerometer module mounted in a shaft of the golf club; and transmitting the first and second golf swing data (Inertial Navigation System 10 in Figs. 1 and 4, paragraphs, 39, 41-44, 49, 51-55, 69, 84).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Storek (US 2004/0259651)

3, 4. Storek discloses the claimed invention except the head of the golf club is a wood or iron. However it is notoriously well known in the art that wood or iron is used for the head of a golf club. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the head of the golf club wood or iron since it was known in the art to use wood or iron for the head of golf clubs.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Storek (US 2004/0259651) as applied to claim 1 above, and further in view of Petrash (US 3,226,704).

2. Storek discloses the accelerometer module is mounted within the head of the golf club as discussed above in claim 1, but fails to teach the accelerometer is removable. Nevertheless, such modification would have been obvious to one of ordinary skilled in the art. In an analogous art to accelerometers used for golf clubs, Petrash discloses a method of attaching an accelerometer to a golf club (10 in Fig. 1). The accelerometer is removable mounted to the golf club by a clip (74 in Figs. 1 and 2). The removable accelerometer allows the user to easily replace the accelerometer component when the accelerometer breaks. Furthermore, the user can easily remove accelerometer when using the golf club during a game. This will eliminate the excess weight from the accelerometer. Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify Storek's golf club, and incorporate Petrash removable accelerometer module, in

order to have the accelerometer module removably mounted within the head of the golf club for the purposes of replacing the accelerometer and eliminating the excess weight during game play.

Claims 7-8, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Storek (US 2004/0259651) as applied to claim 1, 11 above, and further in view of Gedney et al. (US 5,209,483).

7, 8. Storek discloses a training golf club that specifically analyzes the swing of the user as discussed above. However, Storek fails to teach the golf club includes an impact module configured to sense the location of impact with a golf ball, wherein the impact module comprises an array of strain gauges. Storek specifically discloses a training golf club that specifically measures the swing of the user. Nevertheless impact modules for golf clubs are well known in the art. In an analogous art to training golf clubs, Gedney discloses a golf club including an impact module configured to sense the location of impact with a golf ball, wherein the impact module comprises an array of strain gauges (Force sensors, Figs. 1-2B). Storek's training golf club is used to measure the force and the location the ball was hit in respect to the golf club's head (cols. 1-9). Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify Storeks training golf club that analyzes the swing of the user and incorporate Gedney impact module configured to sense the location of impact with a golf ball, wherein the impact module comprises an array

of strain gauges in order to provide a golf club that can also be used measure the force and the location the ball was hit in respect to the golf club's head.

12. See claim 7 above. Furthermore Storek and Gedney discloses a computer-readable medium (Storek, paragraph 5; Gedney, cols. 6:19-27, 6:67-7:5).

Claims 9, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Storek (US 2004/0259651) and Gedney et al. (US 5,209,483) as applied to claims 7 and 12 above, and further in view of McTeigue. (US 5,221,088).

9. Storek in view of Gedney discloses the claimed invention as discussed above but fails to teach golf club includes a grip pressure sensor. However it is well known in the art to provide grip pressure sensors for sporting apparatuses. In an analogous art to golf clubs that measures and analysis's the golf swing, McTeigue discloses golf club with a grip pressure sensor. McTeigue discloses the grip pressure sensor is used as a training aid, by help users learn to maintain a relatively light and constant grip pressure while swinging the golf club (col. 4:24-43). Therefore it would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify Storek in view of Gedney's invention and incorporate a grip pressure sensor in order to train users in maintaining a relatively light and constant grip pressure while swinging the golf club.

13. See rejection for claim 9 above. Furthermore Storek and McTeigue discloses a computer readable medium (Storek, paragraph 5; McTeigue, col. 7:44-51).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Storek (US 2004/0259651) as applied to claim 1, and further in view of Evans (US 3,792,863) and Lagerblade (US 1,444,842).

6. Storek discloses the instrumented golf club as discussed in claim 1, wherein the golf swing data is transmitted to computer through radio frequency or infrared (paragraph 84). However, Storek fails to disclose an antenna that comprises a ferrule that connects the head of the golf club to the shaft of the golf club. Nevertheless, such features would have been obvious to incorporate as discussed below.

Storek discloses transmitting golf swing data wirelessly to a computer. However Storek fails to teach an antenna is used to transmit the data wirelessly. Nevertheless, using an antenna to transmit wireless data is well known in the art. In an analogous art to a golf swing measurement system, Evans discloses an antenna to transmit the data wirelessly. Evans further discloses the shaft of the golf club may serve as a transmitting antenna (col. 2:17-19). Using the shaft of the golf club as an antenna, will efficiently radiate wireless signals without attaching an additional antenna to the golf club. Therefore it would have been

obvious to one of ordinary skilled in the art at the time the invention was made to modify Storek's instrumented golf club and incorporate Evans' shaft as an antenna in order to provide an antenna to transmit wireless signals without attaching an additional antenna to the golf club.

Storek in view of Evans significantly discloses the claimed invention as discussed above but fails to teach a ferrule that connects the head of the golf club to the shaft of the golf club. Nevertheless such modification is notoriously well known in the art. A ferrule is commonly used to connects the head of the golf club to the shaft of the golf club in order to secure the head of the golf club to the shaft of the golf club. Furthermore, the ferrule prevents the shaft from splitting. This is supported by Lagerblade (lines 102-108). Therefore it would have been obvious to modify Storek in view of Evans instrumented golf club, and incorporate Lagerblade's ferrule in order to prevent the shaft from splitting.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasson H. Yoo whose telephone number is (571)272-5563. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on (571)272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JHY

A handwritten signature in black ink, appearing to read 'Xuan M. Thai', with a stylized, cursive script.

XUAN M. THAI
SUPERVISORY PATENT EXAMINER